

Region 3 Plan Summary
Philadelphia-Wilmington-Trenton Ozone Nonattainment Area

Title: Ozone Nonattainment Plan for the Philadelphia-Wilmington-Trenton Ozone Nonattainment Area

Federal Register Dates: December 16, 1999, 64 FR 70428 (proposed rule); July 28, 2000, 65 FR 46383 (supplemental proposed rule); October 26, 2001, 66 FR 54143 (final rule).

EPA Effective date: November 26, 2001

State Submittal Dates: April 30, 1998; revisions submitted on July 31, 1998, August 21, 1998, February 25, 2000, and July 19, 2001.

Affected Area: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties

Summary of the Plan: Pennsylvania submitted a 1-hour ozone attainment demonstration. This demonstration consisted of: Photochemical grid modeling results for three episodes representing different weather conditions, additional evidence to demonstrate attainment for the Philadelphia-Wilmington-Trenton nonattainment area, VOC and NO_x emission inventories, and identification of control measures needed to attain the 1-hour national ambient air quality standard (NAAQS) for ozone by November 15, 2005. EPA evaluated this information and performed additional analysis and concluded that additional assurances were needed to conclusively determine that the Philadelphia-Wilmington-Trenton 1-hour Ozone Attainment Plan will result in attainment. Pennsylvania provided this assurance by committing to adopt additional control measures which would result in the EPA-identified VOC and NO_x emission reductions and to perform a mid-course review which would determine whether Pennsylvania was still on track to attain.

Control Measures/Regulations Included As Part of the Plan:

Name of Control Measure or SIP Element	Type of Measure	Included in Local Modeling	Approval Status
Enhanced Inspection & Maintenance	CAA SIP Requirement	Yes	SIP Approved (6/17/99, 64 FR 32411; revised 8/15/03, 68 FR 48805)
Federal Motor Vehicle Control Program (Tiers 1 & 2)	Federal Rule	Yes	Promulgated at 40 CFR Part 86

National Low Emission Vehicle (NLEV)- to the extent not superseded by Tier 2	State Opt-In	Yes	Federal program promulgated at 40 CFR Part 86, subpart R. State opt-in adopted and submitted; SIP Approved (12/28/99, 64 FR72564)
Reformulated Gasoline (Phase 1 and 2)	Federal Rule	Yes	Promulgated at 40 CFR Part, 80 subpart D
Federal Non-Road Gasoline Engines (Small Gasoline Engines)	Federal Rule	Yes	Promulgated at 40 CFR Part 90
Federal Non-Road Heavy Duty Diesel Engines	Federal Rule	Yes	Promulgated at 40 CFR Part 89
NO x RACT	CAA SIP Requirement	Yes	SIP Approved (3/23/98, 63 FR 13789; 10/30/01, 66 FR 54698)
VOC RACT	CAA SIP Requirement	Yes	SIP Approved (3/23/98, 63 FR 13789; 10/30/01, 66 FR 54698)
Stage II Vapor Recovery	CAA SIP Requirement	Yes	SIP Approved (6/13/94, 59 FR 30302; 12/13/95, 60 FR 63938; 5/21/01, 66 FR 27875)
On-Board Refueling Vapor Recovery	Federal Rule	Yes	Promulgated at 40 CFR Part 86
AIM Surface Coatings	Federal Rule	Yes	Promulgated at 40 CFR Part 59, subpart D
Consumer & Commercial Products	Federal Rule	Yes	Promulgated at 40 CFR Part 59, subpart C
Rule Effectiveness for Point Sources* ¹	State Rule	Yes	SIP Approved (10/26/01, 66 FR 54143)

¹ These state initiatives and credits are approved as part of the Post-1996 Rate of Progress plan.

Shutdowns* ¹	State Rule	Yes	SIP Approved
Autobody Refinishing (Mobile equipment repair)	State Rule	Yes	SIP- Approved (8/14/00, 65 FR 49501)
Waste Treatment, Storage and Disposal Facilities (TSDF's)	Federal Rule	Yes	Promulgated at 40 CFR Part 261
Heavy Duty Diesel Engines (On-Road)	Federal Rule	Yes	Promulgated at 40 CFR Part 86
Beyond RACT NO _x Requirements on Utilities	State Rule	Yes	SIP Approved (6/6/00, 65 FR 35840)
Sanitary Landfills	State Rule	Yes	Federally Approved as a Section 111(d) plan (09/17/99 64 FR 50453)
Benzene Waste Rule	Federal Rule	Yes	Promulgated at 40 CFR Part 61, subpart F

Motor Vehicle Emissions Budget:

TRANSPORTATION CONFORMITY BUDGETS FOR THE PENNSYLVANIA PORTION OF THE PHILADELPHIA AREA

Type of control strategy SIP	Year	VOC(TPD)	NO _x (TPD)
Attainment Demonstration	2005	79.69	144.73

Emission Reductions:

Attainment year emission inventories were developed through the use of Bureau Economic Analysis (BEA) growth factors for area source (VOC & NO_x) and point source (VOC) growth. EGAS growth factors were used for off-road mobile source (VOC & NO_x) and point source (NO_x) emission projections. EPS-2 and EMS-95 along with Mobile 5b were used to grid and speciate emissions for the July 1988 and the July 1991 episodes respectively. The below-listed table summarizes the percentage reduction in emissions from the 1990 levels expected in the Delaware portion of the Philadelphia interstate nonattainment area. The percentage reduction takes into account growth as well as emission reductions from measures adopted since 1990. Column four represents the percentage reduction of NO_x emissions from 1990 to 2005 when emission reductions anticipated from the NO_x SIP call are combined with reductions from all other local measures.

Pennsylvania Portion of the Philadelphia Area Emissions (tons/day)

	1990	2005	% Reduction
NO_x	487	317	35
VOC	669	428	36

Commitments:

Commitment	Adoption Date	Emission Reductions in Tons per Day (TPD)
Adopt additional control measures*	10/31/01	VOC- 3.4 TPD NO _x - 62 TPD
Submit revised SIP and motor vehicle emissions budget if additional adopted measures affect the motor vehicle emissions inventory	10/31/01	Not Applicable
Revise SIP and motor vehicle emissions budget within 1 year after MOBILE6 mobile emissions model is issued	1/29/02	SIP Revision (final rule) published on October 10, 2003, (68 FR 58608)
Perform a mid-course review and submit the results to EPA	12/31/03	Not Applicable

* Emissions reductions are for the entire nonattainment area consisting of portions of DE, MD, NJ and PA.

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